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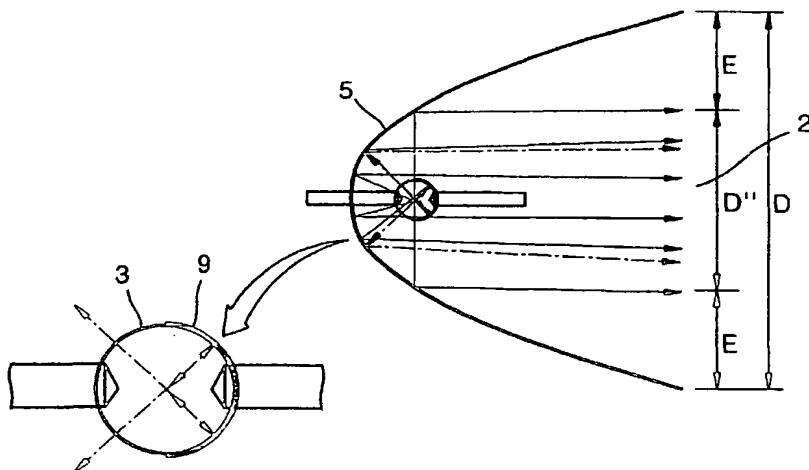
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(54) Title: **HIGH EFFICIENCY LIGHTING SYSTEM, SCROLLING UNIT AND PROJECTION SYSTEM EMPLOYING THE SAME**



(57) **Abstract:** A highly efficient lighting system, a scrolling unit, and a projection system adopting the highly efficient lighting system and the scrolling unit are provided. The scrolling unit has at least one lens cell. From the viewpoint of light incident upon the at least one lens cell, the rotation of the at least one lens cell is converted into a rectilinear motion of a lens array, such that incident light is scrolled. The projection system includes a light source, an optical splitter, at least one scrolling unit, and a light valve. The optical splitter splits light emitted from the light source according to wavelength. The at least one scrolling unit has at least one lens cell. The lens cell has an incident side and an emitting side and divides incident light into light beams. The rotation of the lens cell causes a rectilinear motion of the light beams, thereby scrolling incident light. The light emitted from the light source is separated into color beams by the optical splitter and the scrolling unit, and the color beams are focused on the light valve. The light valve processes incident light according to an input image signal in order to form a color image.

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